

WHAT IS CLAIMED IS:

1. An electric power semiconductor device comprising:
a circuit pattern formed on a main surface of an
insulating substrate;

5 a semiconductor chip mounted on the circuit pattern;
an electrode plate assembly formed near the circuit
pattern, having a first electrode terminal provided at a
predetermined position thereof and a second electrode
terminal disposed below the first electrode terminal;

10 a first connecting conductor made by wire bonding for
connecting the semiconductor chip to the first electrode
terminal; and

a second connecting conductor having an extending
portion extended from a part of the second electrode
15 terminal to be connected to the circuit pattern,

wherein the second connecting conductor is provided
below the first connecting conductor with a space therefrom,
and the connection between the extending portion of the
second electrode terminal and the circuit pattern is
20 implemented by a solder.

2. The electric power semiconductor device according
to claim 1, wherein the extending portion of the second
electrode terminal has a horizontally extending portion and
25 a bending portion downwardly bending in the vertical

direction toward the circuit pattern, and an end of the bending portion is connected to the circuit pattern through soldering.

5 3. The electric power semiconductor device according to claim 1, wherein the extending portion of the second electrode terminal is comprised of only a linear extending portion extending in a horizontal direction having the same thickness as that of the second electrode terminal, and a
10 predetermined position of a back surface thereof is connected to the circuit pattern through soldering.

 4. An electric power semiconductor device comprising:
 first and second circuit patterns formed on main
15 surfaces of first and second insulating substrates, respectively;

 first and second semiconductor chips mounted on the first and second circuit patterns, respectively;

 a multilayer electrode plate assembly disposed between
20 the first and second insulating substrates, having first, second and third electrode terminals provided with a distance from each other;

 a first connecting conductor made by wire bonding for connecting the first and second semiconductor chips to the
25 first and second electrode terminals; and

a second connecting conductor having an extending portion extended from a part of the third electrode terminal to be connected to the second circuit pattern,

5 wherein the connection between the extending portion of the third electrode terminal and the second circuit pattern is implemented by a solder.

10 5. The electric power semiconductor device according to claim 4, wherein the extending portion of the third electrode terminal has a horizontally extending portion and a bending portion downwardly bending in the vertical direction toward the second circuit pattern, and the end of the bending portion is connected to the second circuit pattern through soldering.

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20 6. The electric power semiconductor device according to claim 4, wherein the extending portion of the third electrode terminal is comprised of only a linear extending portion extending in a horizontal direction having the same thickness as that of the third electrode terminal, and a predetermined position of a back surface thereof is connected to the second circuit pattern through soldering.

25 7. The electric power semiconductor device according to claim 4, wherein each of the electrode terminals is

strap-shaped, and a plurality of semiconductor chips are provided on one side of the electrode terminals and a wire bonding portion is provided on only one surface side of the electrode terminals.

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8. An electric power semiconductor device comprising:
first and second circuit patterns formed on main surfaces of first and second insulating substrates, respectively;

10 first and second semiconductor chips mounted on the first and second circuit patterns, respectively;

an electrode terminal disposed between the first and second insulating substrates;

15 a connecting conductor for connecting between the electrode terminal and the first circuit pattern; and

a bonding wire for connecting between the electrode terminal and the second semiconductor chip,

20 wherein the connecting conductor is formed of an extending portion extended from a part of the electrode terminal, and one end portion of the extending portion is connected to the first circuit pattern by a solder.

9. The electric power semiconductor device according to claim 8, wherein the extending portion of the second electrode terminal has a horizontally extending portion and
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a bending portion downwardly bending in the vertical direction toward the circuit pattern, and an end of the bending portion is connected to the circuit pattern through soldering.

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10. The electric power semiconductor device according to claim 8, wherein the extending portion of the second electrode terminal is comprised of only a linear extending portion extending in a horizontal direction having the same thickness as that of the second electrode terminal, and a predetermined position of a back surface thereof is connected to the circuit pattern through soldering.

11. An electric power semiconductor device comprising:

first and second circuit patterns formed on main surfaces of first and second insulating substrates, respectively;

first and second semiconductor chips mounted on the first and second circuit patterns, respectively;

first, second and third electrode terminals which are laminated from an upper position to a lower position in this order, and disposed between the first and second insulating substrates;

25 a first bonding wire for connecting between the first

semiconductor chip and the first electrode terminal;

a second bonding wire for connecting between the second semiconductor chip and the second electrode terminal;

5 a first connecting conductor for connecting between the second electrode terminal and the first circuit pattern; and

a second connecting conductor for connecting between the third electrode terminal and the second circuit pattern,

10 wherein the first connecting conductor is formed of a first extending portion extended from a part of the second electrode terminal, and the second connecting conductor is formed of a second extending portion extended from a part of the third electrode terminal, and

15 wherein one end portion of the first extending portion is connected to the first circuit pattern by a solder, and one end portion of the second extending portion is connected to the second circuit pattern by a solder.

20 12. The electric power semiconductor device according to claim 11, wherein the extending portion of the second electrode terminal has a horizontally extending portion and a bending portion downwardly bending in the vertical direction toward the circuit pattern, and an end of the
25 bending portion is connected to the circuit pattern through

soldering.

13. The electric power semiconductor device according
to claim 11, wherein the extending portion of the second
5 electrode terminal is comprised of only a linear extending
portion extending in a horizontal direction having the same
thickness as that of the second electrode terminal, and a
predetermined position of a back surface thereof is
connected to the circuit pattern through soldering.